Effect of Mindfulness Activities on Attention, Visual Perception and Emotional Regulation of Primary School Children

A

Synopsis

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1.0 Introduction

Primary education is the first stage of education for learners in a formal settings of educational system. Most of the children are separated first time from the secure and comfort zone of their parents because very few children are lucky to have pre-primary education in India. Primary education ensures the broad-based development of pupils by enhancing cognitive, social, emotional, cultural and physical skills to best of their abilities. This stage of education is now called as a foundational stage (NPE Draft 2019). Researches on this area reports that children who taught at an early age usually possess fewer behavioural problems, better social and emotional skills without any special attention to them. This foundational stage education has a great impact on self-confidence of the learner which shapes personality of learner for future.

1.1 Mindfulness

It is difficult term to define in objective manner. It varies on the basis of its application and mays be defined as a construct, practice, trait and process. Although, it may be define by its fundamental nature and be understood as 'the awareness that emerges through paying attention on purpose, in the present moment by moment and non-judgmentally to the unfolding of experiences moment by moment' (Kabat-Zinn 2003,p.145). The term mindfulness has been defined by various authors in different ways as they operationalized it such as "method", "perspective", "experience" or "cognitive process" (Brown et al,. 2007). "A receptive attention and awareness to present event and experiences", when we define it as a method then it may be described as a form of practicing specific mental activity in a repetitive manners to redirecting attention towards present experiences (Bishop et al., 2004).If it is defined in the context of meditation, "focusing on the mind for a purpose of time" (Concise Oxford English Dictionary, 202, p.885). It is the psychological process of bringing attention to their own experiences occurs in their present moment (Kabat-Zinn J.2013). When mindfulness defined as a cognitive process, it refers to an ability to view situations in various perspectives and to modify according to contextual situation (Carson and Langer, 2006). Mindfulness may be understood as a state of consciousness which is characterized by receptive attention and being aware from present events and experiences without judging, evaluating

and filtering the phenomena (Brown & Ryan, 2003). When mindfulness is defined by clinical psychologist in their therapeutic practices, they use mindfulness practices are to reduce the symptom of depression, stress, anxiety and other psychological issues. Mindful based awareness program writers have written that it encourage some of the subjective aspect of well-being which contains the characteristic of positive psychology such as; vitality, spaciousness, freedom, compassion, empathy, happiness and so on (Csikszentmihalayi, 1991; Saligman, 2002). One more another's description of mindfulness is being more aware of (Lager & Moldoveanu, 2000; Kabat-Zinn, 2003).

1.2 History of Mindfulnes

This term "Mindfulness" is not newly originated, it is rooted from Buddhist philosophy. The term mindfulness is a literal translation of the Buddhist word 'Sati'- which means "wakefulness of mind", "intense of mind", "lucidity of mind" (David &Stede, 1959, p.672).It highlights the sense of intention, awareness and attention which are the key constituents of mindfulness. Despite its origin from Buddhism but has no religious connotation (Hagen, 2003). This mindful meditation is the heart of Buddhist tradition and its aim is to develop deeper awareness of the present moment (Nayanaponika, 1998). Mindfulness meditation has the world popularity not only in the Eastern countries (Mitchell, 2002). Individuals those have given ground to mindfulness in modern Western context are; Thich Naht Hanh (1926), Herbert Benson (1935), Jon Kabat-Zinn (1944), and Richard J. Davidson (1951). Among them all, the most prominent work was done by Kabat-Zinn (1990), developed a therapeutic intervention which is known as 'Mindfulness-based Stress intervention'. Initially, it was developed to assist clinical patients, and further its application extended for non- medical patience to gain them a state of well-being.

1.3 Mindfulness Activitie

Mindfulness can be practiced in many forms such as- through physical exercises, mental exercises, and other daily routine tasks exercises like eating, walking, bathing, washing. Mindfulness physical exercises include; body postures and body scanning and yoga. Mindfulness meditation include; mental imagery, candle meditation, walking meditation, eating meditation, concentration towards a particular object (i.e. image, symbol, sound), and mindfulness of daily routine tasks include; mindful seeing, mindful listening, mindful feeling, mindful tasting, mindful smelling and so on other daily life tasks. It does not requires special time

and attention to practice, when mindfulness practices are performed through some form of activities, then it consider as a mindfulness activities, those activities are; raisin exercise, beat listening exercise, texture bag game exercise, heartbeat exercise, belly buddies, the superman pose, natural environment awareness exercise, water glass game, balancing chips game, sitting like a frog- involves the practice of notice breathing and reflecting about what their breathing is telling to them (Snel, 2013, p.26-27), time in- time to check yourself activity- refusing their attention and awareness (Schoeberlein & Seth, 2009, p.91).

1.4 Mindfulness Activities in the Classroom

Formally, the mindfulness has been introduced in the classroom across the schools of United State. Practices of mindfulness in the classroom means integration of mindfulness activities with the teaching-learning process of the classroom. Mindful Sitting poses, mindful listening, mindful walking, mindful classroom awareness etc. The practice of mindfulness exercise in the classroom are not advocating any religious affiliation, these are the simple psychological process which provides a ways to support children mentally, to being aware with their psychological need and learn them to cope with daily life challenges. Recent statistical data of United Kingdom indicate that about 50 % school-age children engaged in some form of mindful activity (Stone, 2014). Due to the positive finding on adult, number of mindfulness programs are implemented in schools around the world (Albretch, 2014) and children also articulated the benefits of mindful exercise in such respective areas; academic achievement, knowledge regarding their emotion, able to pay attention, self-efficacy towards bullying, empathy, compassion etc. (Coholic,2011).

1.5 Mindfulness and Attention

Number of learners face challenges to maintain attention in classroom then the teachers have to make significant changes in the physical environment of the classroom. However, the environment is not only the reason of inattention. Number of factors works in maintaining attention, in which the human's mind, structure and their function is most important. Researches on attention in education report that students attention is the contributing factor of success in school because of the ability to maintained attention on a specific task (Fredricks, Blumenfeld, &Paris, 2004; Voutela et al., 2013; Smith,2014).

The ability to dominant impulsive behaviour and to regulate and adjust their behaviour, leads towards a positive outcome in school (Moteiro, 2015). A specific kind of cognitive as well as physical training may help children to learn that how to being in the present moment which could be beneficial to foster the ability of concentration in the classroom. Mindfulness have been shown helpful for students to achieve balance, less stress and maintain attention (Monteiro, 2015; Thornley-Hall, 2015). Participants of mindfulness exercise demonstrated increment in attention and a decrease amount of impulsive and hyperactive behavior (Kagy-borofka, 2013). Mindfulness program may be concerned as a parallel form of student-centered approach in order to achieve attention, self- regulation and high level of engagement by the student (Garrett 2008).

1.6 Mindfulness and Visual Perception

Visual perception is an important skill for regular basic task as well as academic task such as reading, writing, cutting, drawing, discriminating inputs on the basis of similarity and non-similarity of the objects. Perception is an ability to interpret the information which receives through sense organs from our surrounding environment. Visual perception is an ability to explicate the environment through visual spectrum which reflects by the object. There is need to understand that it is different from visual acuteness which refers to the ability of individual that how clearly a person sees (for instance "20/20" vision). This may be defined as the sum of two responsible components which compiles the process of visual perception. Those components of visual perception are sensory functioning through eyes and visual receptive function which done by cognitive functions of the brain. The sensory function is to detect the stimulus from the environment, the process of extracting and organizing the stimulus and the specific function of brain is to identification and recognition of stimulus ad their properties such as their shapes, size, color and other different properties. Mindfulness meditation is an intentional process of consciousness in which span of attention starts to occurred around the all available inputs (Sensory, mental or physical). It has been significantly proved that mindfulness meditation practices effects each and every part of the brain which activates the neural networks of the brain comprising such as prefrontal cortex, inferior parietal cortex, somatosensory and visual cortex (Farb et al ., 2007). One of the study indicates that mindfulness practices have impact on visual perception (Naranjo and Schmidt; 2012,

Tarrasch et.al. 2017). Thus, it is predicted that mindfulness activities will be effect visual perception of primary school children.

1.7 Mindfulness and Emotional Regulation

There are number of behavioural problems occur in the classroom such as bullying, gazing, teasing, excessive talking and impulsive behaviour which further leads to become a base for emotional-behavioural dysregulation. Teachers have challenges to balance and manage various emotional and behavioural problems of the classroom. Disruptive environment results increase in emotional distress and become a reason for job dissatisfaction and poor teacher retention (Darling– Hammond 2001; Montgomery and Rupp, 2005). Emotion regulation is somewhat similarly, as cognitive control or top-down inhibition of a lower, primitive, and more impulsive system (Gross & Thompson, 2007). Mindfulness activities are an intentional practice of paying attention in the present moment without any habitual reaction. Training of Mindfulness is found highly associated with attention control, reducing psychological problems and a positive link with self-control, creativity discipline which are strong indicators of future academic success than IQ or other socio-economic factors (Wills & Dinehart, 2014). Initial stage of improvement in executive function plays a protective factor for a students those are from disadvantaged or stressful living conditions, falls at greater risk factor of self-dysregulation (Lengua, 2002; Mc Clelland & Cameron 2011).

2.0 Emergence of the problem

School is a place where lots of pressure like; structured schedule of classes, available a limited number of choices to spent time for fun or any other activity, which amplifies stress and anxiety in the learners and raise pressure on their mental health. Continued pressure of academic performance on students and at the same time, teachers are also facing pressure to balance children emotionally as well as from more chronic stress (Van de Weiger-Bergsman, 2012). An increased amount of behavioural-emotional and attentional difficulties are placing more expectations and demands from teacher. A huge number of problems manifest by the teacher during the classroom, when the given task of classroom requires attention and the children are not able to sustain and perform attention continuously. Lack of attention and emotional stability in classroom exhibits the potential of poor performance in reading,

writing, and mathematics. If the children have no ability to face and handle them to shut out themselves from those situations, this may cause a serious problem for their lives both now and later on. Sometimes the children have lower visual-cognitive abilities which makes the child incompetent to identify, manipulate and draw a meaningful sense from the given input. The emphasis of curriculum on holistic education which includes physical, emotional and mental well-being, leads researcher orientation to link educational practices with mindfulness practices, which provides number of solutions for emotional well-being, better mental functioning, enhance academic capacities without any requirement of additional equipment or technology. Mindfulness, which focus about awareness on the present moment, and enables children to grab information rapidly from their surroundings. To overcome the problems of classroom towards behavioural & cognitive regulation. These discussed problems illuminated the interest of researcher towards this area and thought, Can mindfulness activities be possible with this age group? Are mindfulness activities improve cognitive functions of brain? If mindfulness activities are acquire by primary school children, may improve focused attention, visual perception, and emotional regulation?

This is a preventive healthcare, habit development study which develops awareness and sensibility in the children about their body, emotional, behavioural and such other external areas.

3.0 Justification of the study

During the last few decades, mindfulness based intervention has become an interesting concern of research in worldwide. The practice of mindfulness on a group of adolescents diagnosed attentional and behavioural control deficits, and reported significant increase in personal goal, sustained attention, happiness (Bogel et.al, 2008). Mindfulness awareness practices (MAPs) promote a state of receptive attention to moment by moment experiences (Bishop et, al., 2004; Seigel, 2007). Evidence based studies through brain imaging and electroencephalography reports that mindfulness awareness practices can improve attention regulation (Jha, Krompinger&Baime, 2007; Zylowskaet, al., 2008). The practice of mindfulness for children is similar to that for adults, but should be of short period and in concrete form of exercise (Weare, 2013). Mindfulness practices have been shown improvement in various cognitive skills such as executive functioning (Chan and Wallocott, 2007; Flooket, al.2010), memory (Jha et

al.2010; Mrazek et, al.2013) and Visio spatial processing (Zeidan et al., 2010). Mindfulness-based yoga intervention to promote self-regulation among preschool children, and assessed multiple indices of self-regulation which compile attention, delay of gratification and inhibitory control, and reported result shows a significant effect in all indices of self-regulation (Razza, Bergen-Cico&Raymond, 2013). Selective attention and working memory are the basic ability to filter irrelevant sensory information while focusing on relevant information which is related with higher order mental process (Fox and synder: 2011). The mindfulness practice help the practitioners to remain focus on a given task, ignore distraction, and enable them to reduce self-imposed burden and impulsivity, whilst increased sense of their personal well-being (Brown and Ryan, 2003; Carmody and Baer, 2008). By training of selective, sustained and shifting attention boosts neurological process which is crucial element for learning and future academic success (Diamog, 2013).

Number of studies has proved that a positive correlation exists between visual perception and academic performance, which includes written expression, mathematical skills etc. (Asselet al.2003; Carlson et al.2013). Meditation was found strongly associated with more flexible and efficient visual perception (Hodgins and Adair, 2010). Studies in academic context reveal the role and importance of learning environment which should be free from disruption to support academic learning (Black and Fernando 2014). Executive functioning includes the specific inter links in neural system which comprise the activity of cognitive flexibility, working memory and inhibitory control (Diamond 2013). Number of theories asserts that emotional regulation is a fundamental keys of all higher order cognitive functioning, and chronic stress, anxiety, inefficiency in social competencies are indicators of poor academic success. Conversely, resilience, compassion, empathy, generosity, optimism, social altruism are competencies which specifically taught in school, and influence relationship and surroundings (Durluck, Weissberg, Dymnicki, Taylor &Schellinger, 2011).

Recently the UK government has taken an initiative trial for kids in over 370 schools of UK, It is an effort towards the mental health and well-being of Kids, and help children to learn variety of techniques to handle stress of daily life, and proper regulation of their emotions (UK's Education Secretary Damian Hinds on 4th Feb 2019). The number of running programs on Early Childhood Mindfulness Practices such as; Mindful Awareness Practice(The Mindful Awareness Research Centre,

University of California), The Mind UP program (The Hawn Foundation, UK), Mindful Schools and Kindness Curriculum (Centre for Healthy Minds, University of Wisconsin-Madison) are the programs, which grab the attention of researcher.

Researcher analysed number of studies and found that a huge number of studies focused on the population of old age, adults, a very few number of studies have done on school going population and when we look in the area of school going population, these studies were oriented towards the problem of ADHD, conduct disorder, emotional-behavioral deficits, and executive dysfunctioning etc. (Bootzin and stevens, 2005; Bogels et al., 2008; Zylowska, 2008; Biegel et al., 2009). Context of conducted studies on mindfulness practices were psychological therapeutic conditions such as insomnia, depression, emotional dysregulation (Biegel et.al, 2009; Goyal et al., 2014; Chen et al., 2012; Kumar et al., 2008).

Several studies have indicated that visual perception and motor accuracy are precursors of academic performance (Dhingra et al., 2010; Carlson et al., 2013; Sons and Meisels, 2016). Importance of visual perception as a precursor of future academic success (See Dhingra et al., 2010 reported above), significant effect of mindfulness practices on classroom behavior (Fernando, R.2013) and executive functioning (Flook et al., 2010).Number of studies have done on mindfulness practices with number of different variables such as visual perception, executive functioning, classroom behaviour, emotional regulation and some other variables separately, but no any study found by the researcher on attention, visual perception and emotional regulation conjointly.

On the basis of other study findings and suggestions, the researcher chosen this area to study as a research gap area for primary school children, and on the light of fulfilling the existing research gaps, the present study is aimed at addressing the following questions. First, do mindfulness activities affect attention of primary school children? Second, do mindfulness activities affect visual perception of primary school children? Third, do mindfulness activities affect emotional regulation of primary school children? The one more question of the study is; how family structure moderates the relationship between mindfulness activities and the dependent variables (i.e. attention, visual perception, and emotional regulation) of pre-primary schoolers? This present study will be conducted to find out the equitable answers to these questions.

4.0 Statement of the problem

Effect of Mindfulness Activities on Attention, Visual Perception and Emotional Regulation of Primary School Children.

5.0 Operational Definitions of the Terms

5.1 Mindfulness:

Mindfulness includes the process of observing (noticing internal and external stimuli); describing (mentally labelling stimuli with works); acting on stimuli with awareness (attending to one's current action as contrast to behaving); and nonreactive on inner experience (allowing thoughts and feelings to come and go). (Baer, Smith, Hopkins, Krietemeyer & Toney, 2006).

In the present study, mindfulness activities are the activities having attributes of mindfulness i.e. observing, describing, acting on stimuli with awareness, nonreactive on inner experiences. These activities will consist of; raisin exercise, beat listening, texture bag game, heartbeat, belly buddies, the superman pose, natural environment awareness exercise, water glass game, chips balancing game, sitting like a frog activity etc.

5.2 Attention:

The ability to focus on and to attend stimuli over a period of time and the capacity to take in and report back stimuli immediately after presentation (White, Campbell, Echeverria, Knox, Janulwicz, 2009).

In the present study, this construct will be operationalized in the same manner of the above presented definition.

5.3 Visual Perception:

It is an ability to comprehend and organize visual inputs from one's environment (Sorter and Kulp, 2003).

In the present study, it is implied as the ability of children to identify differences and similarities between the inputs and ability to organize the inputs according to their properties.

5.4 Emotional Regulation:

Emotional regulation comprises neurophysiological responses, cognitive processes of attention, information processing, and encoding of internal cues, as well as behavioural mechanisms, for example- appropriate response selection or regulating & leading the demands of familiar settings (Gross, 1998; Thompson, 1994; Walden and Smith, 1997).

In the present study, this construct will be operationalized in the same manner of the above presented definition.

5.5 Primary School Children:

The children studying in primary schools (the schools imparting education from class 1^{st} to 5^{th} grade) .These children are generally in the age group of 6 to 11 years.

In the present study, the primary school children are operationalized as students under the age range of 6 to 7 years of formal education.

6.0 Variables of the Study

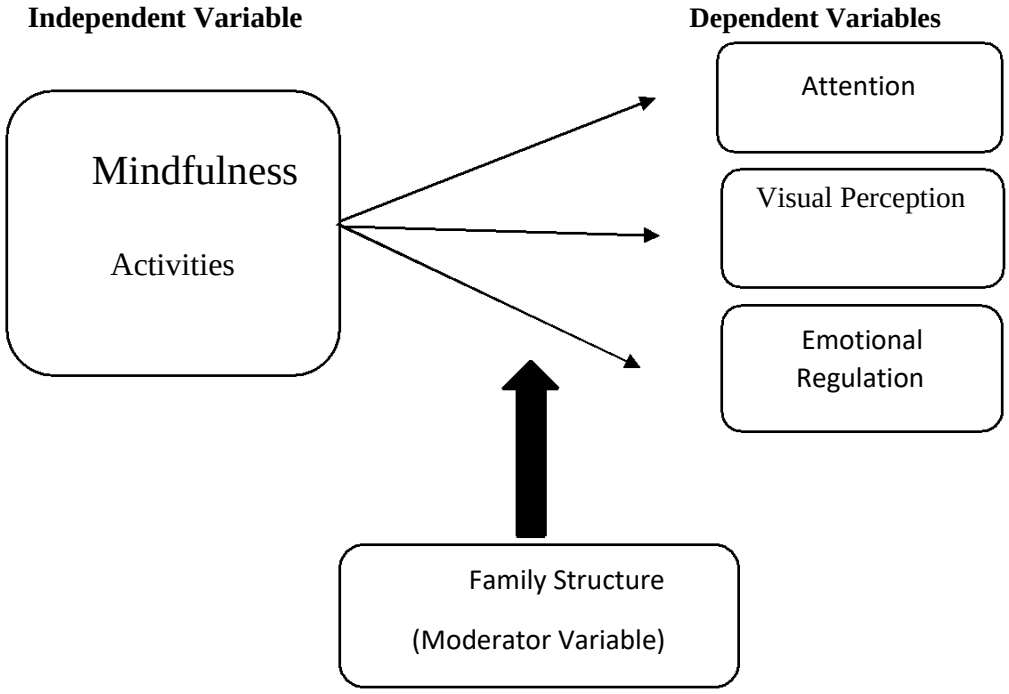

Figure 1: Variables of the study

7.0 Objectives of the Study

7.1 To study the effect of mindfulness activities on attention of primary school children.

7.2 To study the effect of mindfulness activities on visual perception of primary school children.

7.3 To study the effect of mindfulness activities on emotional regulation of primary school children.

7.4 To study the moderator effect of family structure between the relationship of mindfulness activities and the dependent variables (i.e. attention, visual perception, emotional regulation).

8.0 Hypotheses of the Study

8.1 There will be a significant effect of mindfulness activities on attention of primary School children.

8.2 There will be a significant effect of mindfulness activities on visual perception of primary School children.

8.3 There will be a significant effect of mindfulness activities on emotional regulation of primary school children.

8.4 Family structure will not significantly moderates the relationship between mindfulness activities and dependent variables (i.e. Attention visual perception, and emotional regulation) of primary School children.

9.0 Delimitations of the Study

9.1 This study will be limited to 6-7 years of primary school children.

9.2 The selection of school will be done through purposive sampling.

9.3 This study will be limited to Agra city.

10.0 Research Methodology and Design

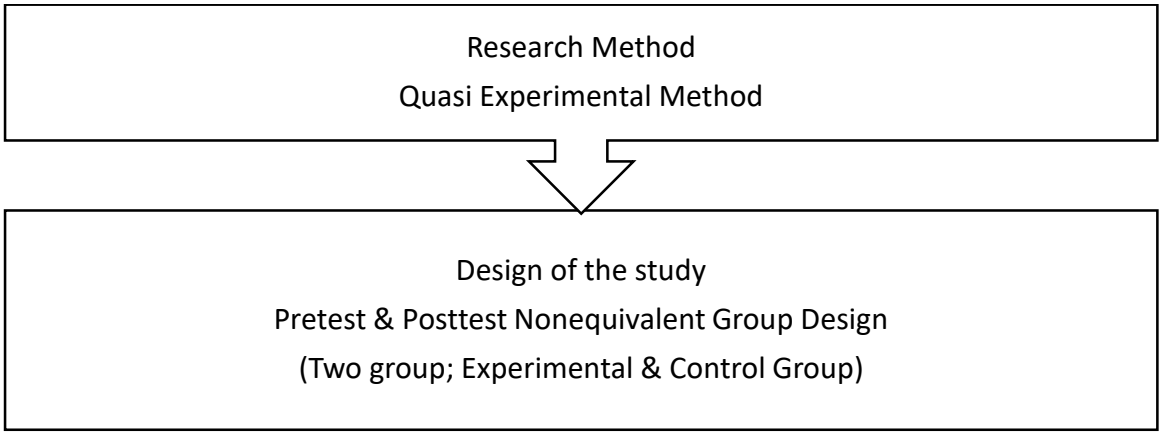
Research Method
Quasi Experimental Method
Design of the study
Pretest & Posttest Nonequivalent Group Design
(Two group; Experimental & Control Group)

Figure 2: Research Methodology and Design

11.0 Population, Sample and Sampling Techniques

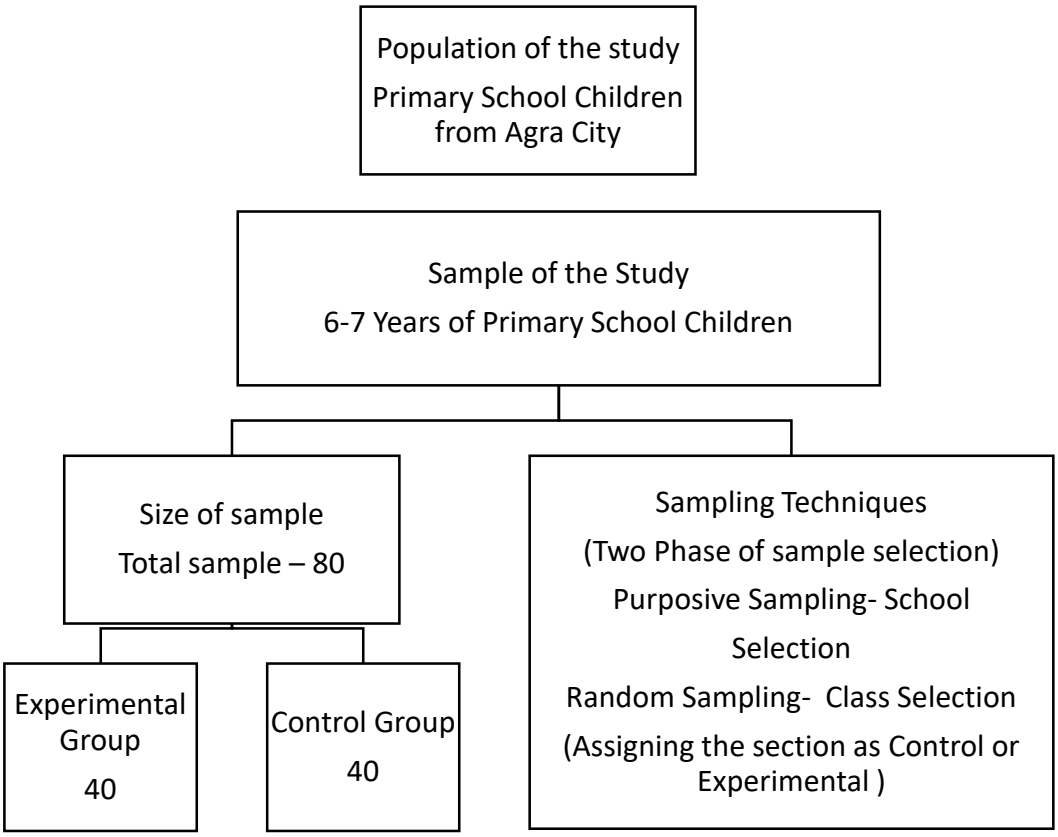

Figure 3: Population, Sample and Sampling Techniques

12.0 Pre-Post Testing & Intervention Plan

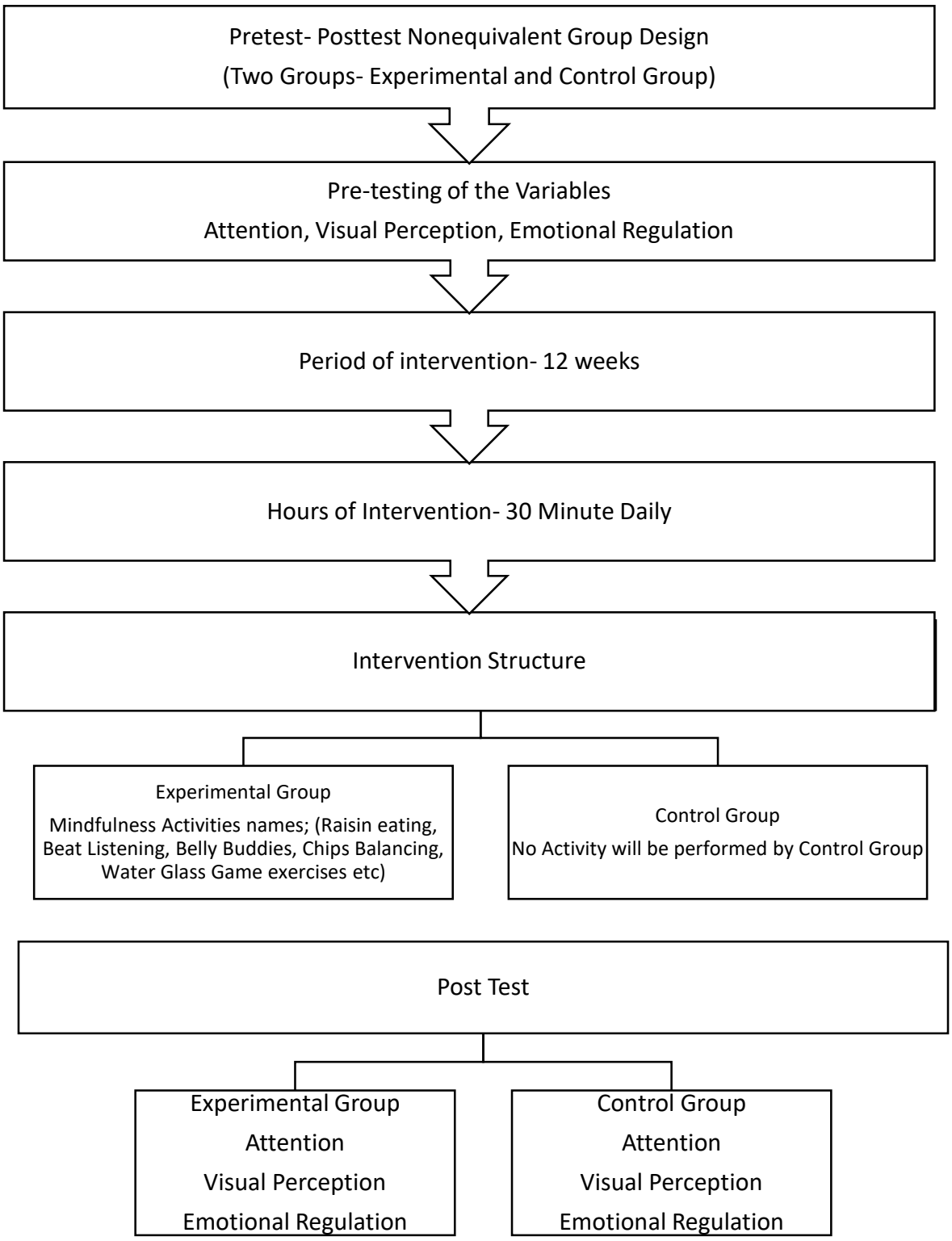

Figure 4: Pre-Post (Non- equivalent groups) Testing & Intervention Plan

14.0 Procedure of the study

Quasi Experimental Method

Quasi- experimental method of research will be used in the present study. This is the best suited method for the present study because no school will permit to conduct experiment on some of the children of same class and to keep some of them in controlled situations. Therefore, the researcher chosen the quasi- experimental method for this study.

Pretest- Posttest Nonequivalent Group Design

Intact classroom will be chosen by the researcher for sample selection because where the random selection of the sample unit is not done there are less chances of equivalent groups. Therefore, the pretest-posttest non-equivalent group design will be used. The Pre-test & Post-test Non-equivalent group design is further illustrated through the table given below:

Table No 1, **Pretest- Posttest Nonequivalent Group Design**

Controlled group (Intact group)	**Pre-testing of the variables** Attention Visual perception Emotional Regulation	No Treatment	**Post testing of the variable** Attention Visual perception Emotional Regulation	Comparison of Controlled and experimental groups
Experimental Group (Intact Group)	**Pre- testing of the Variables** Attention Visual perception Emotional Regulation	Treatment*	**Post testing of the variable** Attention Visual perception Emotional Regulation	

***Treatment proposed to be given to experimental group**

Mindfulness activities exercises namely; beat listening, texture bag game, Belly Buddies, Heart beat listening, Water glass game, Chips balancing game etc. will be given to the experimental group for half an hour a day and for a period of 12 weeks. A brief description has been further given in the table no 2.

Population of the study

This study will be conducted on Primary school Children from Agra city. The children studying in primary schools of Agra city will comprise of the population of present study.

Sample of the Study

In the present study, the students who comes under the age of 6 to 7 years and studying in any one of the primary school of Agra will be chosen as sample of the present study. The total size of the sample will be taken up to 80, in which 40 students for the experimental group and 40 for controlled group.

Sampling procedure

In the first phase of the study, purposive sampling will be used for school selection from Agra city and in the second phase, random sampling will be used for section selection from intact sections of the class to form experimental and control group.

Statistical Analysis

Descriptive Statistics:

It will be used for testing normality of the data.

Analysis of Co-Variance (ANCOVA):

It will be used for comparison between control and experimental group differences by controlling covariate effect.

Moderation Analysis:

It will be used for studying the moderator variable; family structure effect between the relationship of independent variable; mindfulness activities and the dependent variables; attention, visual perception and emotional regulation.

16.0 Short Description of Intervention Activities

The Primary School children will be trained on mindfulness activities, which short description have been given in the below table;

Name of the Mindfulness Awareness Exercise	Description of the Exercise
The Raisin Exercise (Kabat Zin,1990)	It is the practice of integrating all senses to being in a state of present moment.
Beat Listening Exercise (Mindful Hearing Exercise)	It is the practice of attentiveness towards the sound. The group of members sits in a circle and starts to focus on beat, It passes through the all members and have to add one more beat as coming just to next member.
Texture Bag Game Exercise(Mindful Feeling Exercise)	Different color, shape, size and other properties based objects would be in a bag, and participant have to feel the object and reflect on them.
Heartbeat Exercise (Roman, 2015) (Mindful Breathing and Listening Exercise)	The children have to jump Firstly, then sitting down few second and listen breathing carefully.
Belly buddies	Keeping a light weight teddy and other stuffed soft object on their belly, start breathing through the focus of an object to not falling off on the ground.
The Superman Pose (Mindful Body Exercise)	Practice of standing with their feet, firstly clenched, arms reached out then stretch the body out as long as possible (Karen Young, 2017).
Natural Environment Awareness Exercise (Present Moment Exercise)	Mindfulness of nature surrounding practice of being in the present looking at the sky sun then notice What they are smelling and so on learning them to their natural surroundings to bring them aware from their present moment.
Water Glass Game (Mindful Sensory Exercise)	It is the present moment awareness practice through using water, making participant engage by their sense organs.
Chips balancing game	This is the game of body self-awareness, In which the participant has to keep chips balanced without knocking the chips on the floor. It helps to control hyperactivity.

17.0 Short Descriptions of Assessment Task

The following assessment tasks will be used in order to assess attention, visual Perception and emotional regulation of primary school children

17.1 The d2 Test of Attention

This is a paper-pencil test. The individual is asked to identify relevant targets while ignoring irrelevant distracters. The stimulus are organized in 14 rows of 47 letters each. Total test duration is between 8 to 10 minutes.

17.2 Shapes Identification Task for Visual Perception

For the visual perception assessment, geometrical shapes will be presented on the paper, the participant have to choose the dissimilar shape among the similar shapes on the basis of shapes properties such as size, length, width of the shapes.

17.3 Head-Toe-Knee-Shoulder (HTKS) Task for Emotional Regulation

This is the performance based task of emotional regulation, the participants have to perform the opposite task as the instructions given like- touch the head, then the participant have to touch the knee. Two score will be given for correct performance, one score for self-corrected task after mistake and zero for wrong task performance or non- performance.

18.0 Significance of the Study

Regular practice of mindfulness enhances mental efficiency, self-awareness, calmness, and control over their behaviour and breaks the automatic and habitual reaction pattern of thought & actions. Mindfulness intervention directly contribute to the development and enhancement of cognitive, emotional, social, physical health and mental well-being which are the indirect indicators of improving sleep quality, self-awareness, empathy, behaviour regulation and social skills. If the practice of mindfulness activities done by the foundation stage learners in the school and even the classroom settings, then its benefits will become larger useful for the learning process because learning demands a higher level of cognitive processes (i.e., reasoning, problem solving ability, planning, critical thinking, task shifting etc.) for academic success, which governed by the executive functioning of the brain. On the basis of review, the benefit of " Inner Kids" mindfulness program, the "Mind-Up" program really commits a positive results of regular practice because it brings

improvement in executive functioning (Flook et, al, 2010), enhances behaviour, attention and focus (Schonert-Reichl and Hymel, 2007, 2007), and promote social skills & academic outcomes (Beauchemin, Hutchins and Patterson, 2008). These benefits of mindfulness practices may consider as the prerequisite of academic success and will reflect satisfactory outcome.

If the conducted study reports a positive results on attention, visual perception and emotional regulation then practice of mindfulness activities may be followed by the classroom teachers in their classroom to manage dysregulation, attentional problems and will practiced for reading and writing efficiency which are the indicators of future academic success (Dhingra et al., 2010), the educational administrators may plan for the practice of mindfulness on regular basis as a part of curricular or co-curricular activities to inculcate habits in foundation stage learners and engaging them fully in the given task as well as in skills of emotion management for future. Findings of this study may also be beneficial for parents on the perspective of attention and emotional regulation to bring calmness, control over their emotion, attentiveness and being fully engaged in the productive task.

REFERENCES

Albrecht, N. J. (2014). Wellness: A Conceptual Framework for School-Based Mindfulness Programs. The International Journal of Health, Wellness, and Society, 4, 21-36. http://ijw.cgpublisher.com/product/pub.198/prod.161

Assel, M. A., Landry, S. H., Swank, P., Smith, K. E., and Steelman, L. M. (2003). Precursors to mathematical skills: examining the roles of visual-spatial skills, executive processes, and parenting factors. Appl. Dev. Sci. 7, 27–38. doi: 10.1207/S1532480XADS0701

Beauchemin, J.L,Hutchins, T.L.& Patterson, F. (2008)Mindfulness meditation may lessen anxiety, promote social Skills and improve academic performance amongst adolescents with learning difficulties. *Complementary Health Practise Review, 13,* 34---45.

Biegel, G. M., Brown, K. W., Shapiro, S. L., & Schubert, C. M. (2009). Mindfulness-based stress reduction for the treatment of adolescent psychiatric outpatients: A randomized clinical trial. Journal of Consulting and Clinical Psychology, 77, 855-866. doi:10.1037/a0016241

Bishop, S. R., Lau, M., Shapiro, S., Carlson, L., Anderson, N. D., Carmody, J., et al. (2004). Mindfulness: A proposed operational definition. *Clinical Psychology: Science and Practice, 11*(3), 230–241

Black, D. S., and Fernando, R. (2014). Mindfulness training and classroom behaviour among lower-income and ethnic minority elementary school children. J. Child Fam. Stud. 23, 1242– 1246. doi: 10.1007/s10826-013-9784-4

Brown, K. W., and Ryan, R. M. (2003). The benefits of being present: mindfulness and its role in psychological well-being. J. Pers. Soc. Psychol. 84, 822–848. doi: 10.1037/0022-3514.84.4.822

Carlson, A. G., Rowe, E., and Curby, T. W. (2013). Disentangling fine motor skills' relations to academic achievement: the relative contributions of visual-spatial integration and visual-motor coordination. J. Genet. Psychol. 174, 514–533.doi: 10.1080/00221325.2012.717122

Carmody, J., and Baer, R. A. (2008). Relationships between mindfulness practice and levels of Mindfulness, medical and psychological symptoms and well-being in a mindfulness-based stress reduction program. J. Behav. Med. 31, 23–33. doi: 10.1007/s10865-007-9130-7

Carson, S. H., & Langer, E. J. (2006) Mindfulness and Self-Acceptance. Journal of Rational-Emotive & Cognitive-Behavior Therapy, 24, 29-43. http://dx.doi.org/10.1007/s10942-006-0022-5

Coholic, D. A. (2011). Exploring the Feasibility and Benefits of Arts-Based Mindfulness-Based Practices with Young People in Need: Aiming to Improve Aspects of Self-Awareness and Resilience. Child Youth Care Forum, 40, 303-317. http://dx.doi.org/10.1007/s10566-010-9139-x

Construct of mindfulness. *Journal of Social Issues, 56*(1), 1-9. http://dx.doi.org/10.1111/0022-4537.00148

Csikszentmihalyi,M.(1991).*Flow: The psychology of optimal experience*. New York; Harper Perennial.

Darling-Hammond, L. (2001). The challenge of staffing our schools. Educational Leadership, 58(8), 12–17.

Davids, T. W. R., & Stede, W. (Eds). (1959). The Pali Text Society's Pali-English dictionary.London: Luzac & Company, Ltd.

Davidson R (2005). "Meditation and Neuroplasticity: Training Your Brain Interview by Bonnie J. Horrigan". *Explore: The Journal of Science & Healing*. **1** (5): 380– 88. doi:10.1016/j.explore.2005.06.013. PMID 16781570

Dhingra, R., Manhas, S., and Kohli, N. (2010). Relationship of perceptual abilities with academic performance of children. J. Soc. Sci. 23, 143–147.

Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The Impact of Enhancing Students' Social and Emotional Learning: A Meta -Analysis of School-Based Universal Interventions (PDF). *Child Development, 82*(1), 405-432.

Felver, J. C., Celis-de Hoyos, C. E., Tezanos, K., & Singh, N. N. (2016). A systematic review of mindfulness-based interventions for youth in school settings. Mindfulness, 7(1), 34-45. http://dx.doi.org/10.1007/s12671-015-0389-4

Flook, L., Smalley, S. L., Kitil, M. J., Galla, B. M., Kaiser-Greenland, S., Locke, J.,et al. (2010). Effects of mindful awareness practices on executive functions in elementary school children. J. Appl. Sch. Psychol. 26, 70–95. doi: 10.1080/ 15377900903379125

Foxe, J. J., & Snyder, A. C. (2011). The role of alpha-band brain oscillations as a sensory suppression mechanism during selective attention. Frontiers in Psychology, 2, Article ID 154.

Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School Engagement: Potential of the Concept, State of the Evidence. *Review of Educational Research, 74*(1), 59-109.http://dx.doi.org/10.3102/00346543074001059

Garrett, Tracey 2008 Student-Centered and Teacher-Centered Classroom Management: A Case Study of Three Elementary Teachers Journal of Classroom Interaction, v43 n1 p34-47

Gross, J. J., & Thompson, R. (2007). Emotion regulation: Conceptual foundations. In J. J. Gross (Ed.), *Handbook of emotion regulation* (Vol. 3, pp. 24). New York, NY.

Gross, J.J. (1998). Antecedent- and response-focused emotion regulation: Divergent consequences for experience, expression, and physiology. J. Pers. Soc. Psychol. 74, 224–237.

Hagen, S. (2003). Buddhism is not what you think: Finding freedom beyond beliefs. New York: Harper Collins Publications.

Harrington, Anne; Dunne, John D. (2015). "When mindfulness is therapy: Ethical qualms, historical perspectives." American Psychologist. 70(7):62131. Doi:10.1037/a0039460.PMID 26436312.

Hodgins, H. S., and Adair, K. C. (2010). Attentional processes and meditation. Conscious. Cogn. 19, 872–878. doi: 10.1016/j.concog.2010.04.002

Jha, A. P., Krompinger, J., and Baime, M. J. (2007). Mindfulness training modifies subsystems of attention. Cogn. Affect. Behav. Neurosci. 7, 109–119. doi: 10.3758/CABN.7.2.109

Jha, A. P., Stanley, E. A., Kiyonaga, A., Wong, L., and Gelfand, L. (2010). Examining the protective effects of mindfulness training on working memory capacity and affective experience. emotion 10, 54–64. doi: 10.1037/a0018438

Kabat-Zinn J. (1990) Full catastrophe living: Using the wisdom of your body and mind to face stress, pain, and illness.Dell Publishing*; New York*.

Kabat-Zinn, J. (2003). Mindfulness-Based Interventions in Context: Past, Present, and Future. Clinical Psychology: Science and Practice, 10(2), pp.144-156.

Kabat-Zin, Jon (2013), Arriving at Your Own Door: 108 Lessons in Mindfulness, Hachette UK.

Kanagy-Borofka, L. (2013). Integrating mindfulness practices into the elementary curriculum to improve attention-to-task behaviors and social behaviors (Doctoral dissertation, Institute

Kirk Warren Brown, Richard M. Ryan & J. David Creswell (2007) Mindfulness: Theoretical Foundations and Evidence for its Salutary Effects, *Psychological Inquiry*, 18:4, 211-237, DOI: 10.1080/10478400701598298

Lengua, L. J. (2002). The contribution of emotionality and self-regulation to the understanding of children's response to multiple risks. *Child Development*, 73, 144–161. doi: 10.1111/1467-8624.00397

Lisa Flook, Susan L. Smalley, M. Jennifer Kitil, Brian M. Galla, Susan Kaiser-Greenland, Jill Locke, Eric Ishijima & Connie Kasari (2010) Effects of Mindful Awareness Practices on Executive Functions in Elementary School Children, *Journal of Applied School Psychology*, 26:1, 70-95, DOI: 10.1080/15377900903379125

McClelland, M., & Cameron, C. (2011). Self-regulation in early childhood: Improving conceptual clarity and developing ecologically valid measures. *Child Development Perspectives*, 6, 1–7.

Mitchell, D. W. (2002). Buddhism: Introducing the Buddhist experience. *New York*: Oxford University Press.

Monteiro, M. P. (2015). The impact of a mindfulness based attentional skills training program on school related self-regulation skills of elementary school children (Doctoral Dissertation). Retrieved from *ProQuest Dissertations & Theses Global: Health & Medicine; ProQuest Dissertations & Theses Global*: Social Sciences. (1739017180).

Montgomery, C., & Rupp, A. A. (2005). A meta-analysis for exploring the diverse causes and effects of stress in teachers. Canadian Journal of Education, 28(3), 458–486.

Mrazek, M. D., Franklin, M. S., Phillips, D. T., Baird, B., and Schooler, J. W. (2013). Mindfulness training improves working memory capacity and GRE performance while reducing mind wandering. *Psychol. Sci*. 24, 776–781. doi: 10.1177/0956797612459659

Nyanaponika, T. (1998). In: B. Bodhi (Ed.), Abhidhamma studies: Buddhist explorations of consciousness and time (4th ed.). Boston, MA: *Wisdom Publications of Transpersonal Psychology*, CA.

Razza, R. A., Bergen-Cico, D. K., & Raymond, K. (2015). Enhancing Preschoolers' Self-Regulation via Mindful Yoga. *Journal of Child and Family Studies,* 24(2), 372-385. https://doi.org/10.1007/s10826-013-9847-6

Schonert-Reichi, K.A. and Hymel (2007) Educating the heart as well as the mind; why social and emotional learning is critical for student's school and life success. *Education Canada,* 47, 20-25.

Schonert-Reichl, K. A., & Lawlor, M. S. (2010). The Effects of a Mindfulness-Based Education Program on Pre- and Early Adolescents Wellbeing and Social and Emotional competence. Mindfulness, 1,137-151. http://dx.doi.org/10.1007/s12671-010-0011-8

Schonert-Reichl, K. A., Oberle, E., Lawlor, M. S., Abbott, D., Thomson, K. Oberlander, T. F., et al. (2015). Enhancing cognitive and social – emotional development through a simple-to-administer mindfulness-based school program for elementary school children: a randomized controlled trial. *Dev. Psychobiol.* 51, 52–66. doi: 10.1037/a0038454.

Seligman, M. E. P. (2002). Authentic happiness: Using the new positive psychology to realize your potential for lasting fulfilment. *New York*: Free Press.

Snel, E. (2013). Sitting Still Like a Frog: Mindfulness Exercises for Kids (and Their Parents). Boston, MA: Shambhala Publications.

Son, S.-H., and Meisels, S. J. (2016). The relationship of young children's motor skills to later reading and math achievement. Merrill Palmer Q. 25, 755–778. doi: 10.1352/mpq.2006.003

Sortor, J. M., and Kulp, M. T. (2003). Are the results of the beery-buktenica developmental test of visual-motor integration and its subtests related to achievement test scores? *Optom. Vis. Sci.* 80, 758–763. doi: 10.1097/00006324- 200311000-00013

Stone, J. R. A. (2014). Mindfulness in Schools: Taking Present Practice into Account. DECP Debate Edition.https://northampton.academia.edu/JacquelineStone/Papers

Tarrasch R, Margalit-Shalom L and Berger R (2017) Enhancing Visual Perception and Motor Accuracy among School Children through a Mindfulness and Compassion Program. *Front. Psychol.* 8:281. doi: 10.3389/fpsyg.2017.00281

Thompson, R .A. (1994). Emotion regulation: A theme in search of definition. In N.A. Fox (Ed.), the development of emotion regulation: Biological and behavioral considerations. *Monographs of the Society for Research in Child Development*, 59, 25-52.

Tloczynski, J., Santucci, A., and Astor-Stetson, E. (2000). Perception of visual illusions by novice and longer-term meditators. Percept. Mot. Skills 91, 1021–1026

Van de Weijer-Bergsma, E., Formsma, A. R., de Bruin, E. I., and Bögels, S. M. (2012). The effectiveness of mindfulness training on behavioral problems and attentional functioning in adolescents with ADHD. *J. Child Fam. Stud.* 21, 775–787. doi: 10.1007/s10826-011-9531-7

Walden, T.A. and Smith, M.C. (1997). Emotion regulation. Motivation and Emotion, 21-25.

Weare, K. (2013). Developing mindfulness with children and young people: are view of the evidence and policy context. *J. Child. Serv*. 8, 141–153. doi: 10.1108/JCS-12-2012-00

Zeidan, F., Johnson, S. K., Diamond, B. J., David, Z., and Goolkasian, P. (2010). Mindfulness meditation improves cognition: evidence of brief mental training. *Conscious. Cogn*. 19, 597–605. doi: 10.1016/j.concog.2010.03.014

Zylowska, L., Ackerman, D. L., Yang, M. H., Futrell, J. L., Horton, N. L., Hale, T. S., et al. (2008). Mindfulness meditation training in adults and adolescents with ADHD: a feasibility study. *J. Atten. Disord*. 11, 737–746. doi: 10.1177/ 108705470730850

Website Reference

https://mindup.org/coming-soon.html

https://www-nytimes-com.cdn.ampproject.org